



Australian Bureau of Statistics

1367.5 - Western Australian Statistical Indicators, Sep 2008

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 08/10/2008

Summary

Contents



FEATURE ARTICLES

Preparedness for emergencies and household assistance required.



STATE ACCOUNTS

Western Australia's state final demand (trend chain volume measures) rose 2.3% (\$728 million) to \$32,738 million in the June quarter 2008, following a growth of 2.0% (\$627 million) in the previous quarter.



PRICES

Perth's Consumer Price Index continued to rise, from a slow growth of 0.6% in the September quarter 2007 to a growth of 1.6% in the June quarter 2008.



CONSUMPTION

Western Australia's retail turnover (trend) grew 2.1% (\$129 million) to \$6,190 million in the three months to July 2008. New motor vehicle sales (trend) in Western Australia declined 2.8% (848) to 29,647 vehicles in the three months to August 2008.



INVESTMENT AND FINANCE

In trend chain volume terms, private new capital expenditure in Western Australia rose by 3.5% (\$196 million) to \$5,761 million in the June quarter 2008. The number of dwellings financed decreased by 12.7% (2,791 commitments) in the three months to July 2008.



CONSTRUCTION

There were 4,199 houses (trend) approved for construction in Western Australia in the three months to July 2008, 0.2% (7 approvals) more than in the previous three month period.



TRADE

Western Australia's international trade surplus rose 26.3% (\$2,539 million) to \$12,189 million through the year ending June 2008. The value of exports from Western Australia rose 24.1% (\$3,755 million) while the value of imports into the state increased by 20.4% (\$1,216 million).



MINING

Expenditure on mineral exploration in Western Australia rose by 9.3% (\$31 million) to \$360 million in the June quarter 2008 in trend terms



TOURISM

In the June quarter 2008, a total of 45,070 overseas visitors travelled to Western Australia on holiday, 10.5% (down 5,272) less than in the same period of 2007. A total of 109,970 Western Australians went overseas on holiday for the June quarter 2008, 13.0% (12,690) more than in the previous year.



LABOUR MARKET

In the May quarter 2008, job vacancies in Western Australia declined to 27,200. Employment in Western Australia grew 1.7% (up 19,000 persons) to 1,156,000 persons in the three months to August 2008. The unemployment rate (trend) in Western Australia decreased from 3.3% in May 2008 to 3.1% in August 2008.



POPULATION

Western Australia's Estimated Resident Population was 2,149,066 in the March quarter 2008, an increase of 18,269 persons (0.9%) from the previous quarter.

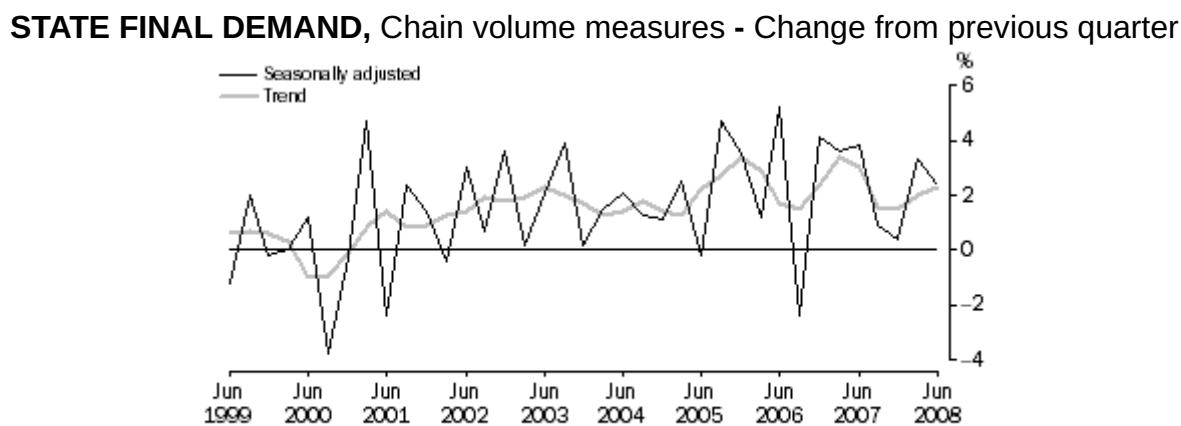
State accounts



STATE ACCOUNTS

STATE FINAL DEMAND

Western Australia's state final demand (trend chain volume measures) rose 2.3% (\$728 million) to \$32,738 million in the June quarter 2008, following a growth of 2.0% (\$627 million) in the previous quarter. Growth in the current quarter was the highest amongst states and territories, with Queensland being the next highest at 1.5%, followed by Tasmania at 1.4%. Nationally, domestic final demand grew 1.1% in the June quarter 2008.



In seasonally adjusted chain volume terms, Western Australia's state final demand grew 2.4% (\$775 million) to \$32,871 million in the June quarter 2008. This growth was mainly driven by private investment in machinery and equipment (up 17.8% or \$630 million) and intangible fixed assets (up 8.5% or \$78 million). Dwellings investment (up 11.6% or \$254 million) and final consumption expenditure of general government (up 0.8% or \$32 million) and households (up 0.1% or \$19 million) also contributed to the growth in the June quarter 2008.

Major detractors from growth in the state's final demand in the current quarter were falls in gross fixed capital formation by public corporations (down 12.4% or \$72 million) and general government (down 2.8% or \$22 million). Private business investment in non-dwellings (down 2.5% or \$118 million) and private sector ownership transfer costs (down 4.6% or \$24 million) also recorded declines in the June quarter 2008.

Prices

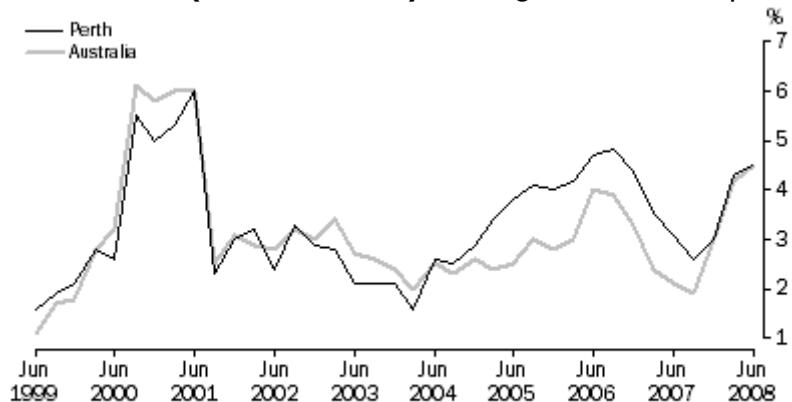


PRICES

CONSUMER PRICE INDEX

Perth's Consumer Price Index (CPI) continued to rise, from a slow growth of 0.6% in the September quarter 2007 to a growth of 1.6% in the June quarter 2008. Perth's CPI rise of 1.6% in the current quarter was slightly higher than the national CPI growth of 1.5%. The higher CPI growth in Perth was mainly driven by Automotive fuel (up 8.4%) - petrol prices continued to rise following the trend in global crude oil prices. Other notable contributors included Deposit and loan facilities (up 9.2%), Rents (up 3.3%) and Hospital and medical services (up 3.2%). Strong demand for rental accommodation in Perth saw the city record the largest increase in rent costs of all capital cities during the quarter, with Darwin and Brisbane showing the next largest increase (both 2.5%). In contrast, prices fell for Fruit (down 5.6%) and holiday travel and accommodation (Domestic down 1.9% and Overseas down 2.2%).

CONSUMER PRICE INDEX (ALL GROUPS), Change from same quarter previous year



Source: Consumer Price Index, Australia, cat. no. 6401.0.

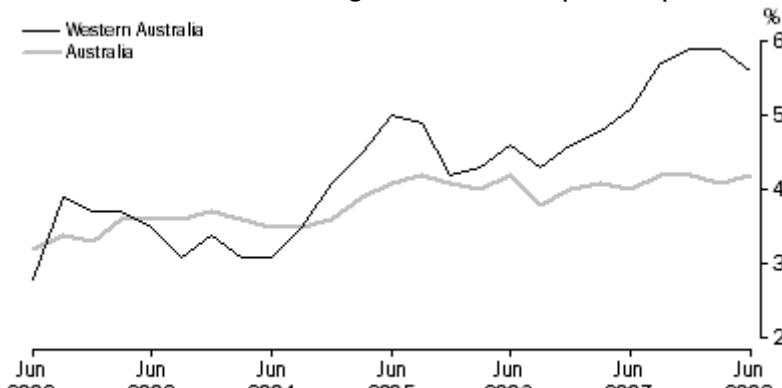
Perth's CPI rose 4.5% through the year to June quarter 2008, following increases of 3.0% for the year to December quarter 2007 and 4.3% for the year to March quarter 2008. Perth's annual CPI growth equalled the nation's CPI rise of 4.5% and was second highest among Australian capital cities, behind Brisbane (5.1%). The main drivers of Perth's CPI growth during the year were Automotive fuel (up 17.8%), Deposit and loan facilities (up 15.8%), Rents (up 12.5%) and House purchase (up 2.1%). Offsetting these rises were declining prices in Audio, visual and computing equipment (down 14.6%), Child care (down 27.0%) and Motor vehicles (down 2.3%).

WAGE PRICE INDEX

Western Australia's Wage Price Index (WPI) of total hourly rates of pay (excluding bonuses) for all sectors rose 1.4% in the June quarter 2008, following growth rates of 1.3% and 1.0% in the December quarter 2007 and March quarter 2008 respectively. In the current quarter,

private sector wage prices increased 1.6%, double that of the public sector wage price rise (0.8%). Western Australia's all sector WPI growth of 1.4% in the June quarter 2008 was higher than the Australian WPI growth of 0.9% and was second highest among other states and territories, behind Northern Territory (1.7%).

WAGE PRICE INDEX, Change from same quarter previous year



Source: Labour Price Index, Australia, cat. no. 6345.0.

Western Australia's all sectors WPI grew 5.6% through the year to June quarter 2008, slightly lower than the rate of 5.9% recorded in the previous period. However, the rate was much higher than the Australian WPI growth (4.2%). Strong growth in wage prices in the state were in the industries of Mining (9.0%), Construction (7.8%) and Transport and storage (6.5%). From an occupation perspective, wage prices growth was strong for Tradespersons and related workers (8.0%), Labourers and related workers (6.2%) and Professionals and Intermediate production and transport workers (both 5.8%).

Consumption

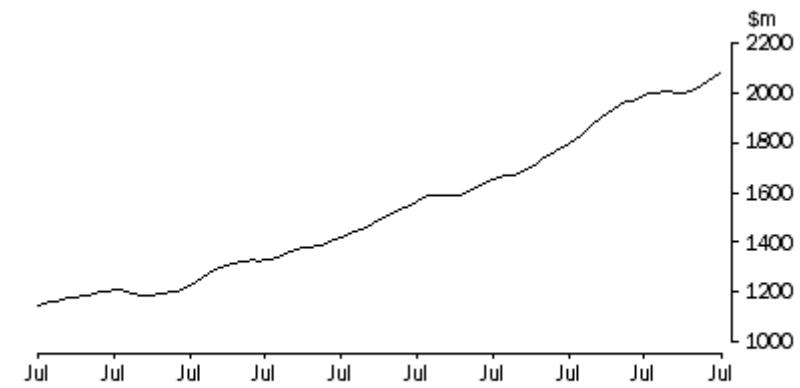


CONSUMPTION

RETAIL TRADE

Western Australia's retail turnover (trend) grew 2.1% (\$129 million) to \$6,190 million in the three months to July 2008, triple the 0.7% (\$41 million) growth recorded in the previous three month period. Nationally, retail turnover (trend) rose 0.3% (\$163 million) to \$54,621 million in the three months to July 2008, following a growth of 0.2% (\$127 million) in the previous three month period.

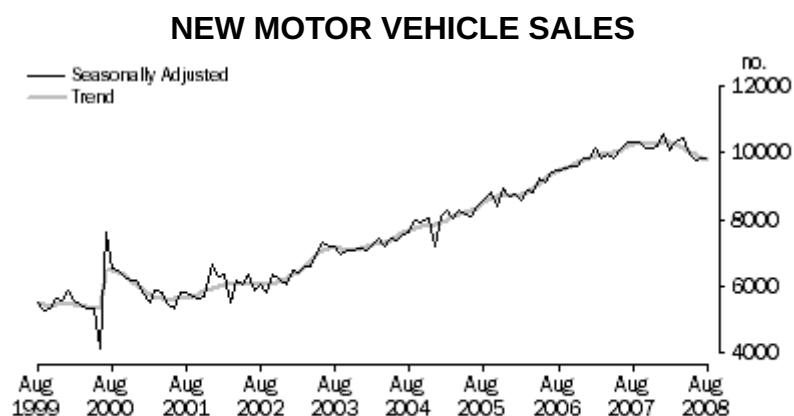
MONTHLY RETAIL TURNOVER, Current Prices - Trend



Source: Retail Trade, Australia, cat. no. 8501.0

NEW MOTOR VEHICLE SALES

New motor vehicle sales (trend) in Western Australia declined 2.8% (848) to 29,647 vehicles in the three months to August 2008, compared with the previous three month period. There were declines in Sports utility vehicles sales (down 540 or 8.3%), Other vehicle sales - comprising utilities, panel vans, cab chassis, goods carry vans, rigid trucks, prime movers, non-freight carrying trucks and buses (down 216 or 2.8%) and Passenger vehicle sales (down 92 or 0.6%).



Note: Break in trend series between June and July 2000.

Source: Sales of New Motor Vehicles, Australia, cat. no. 9314.0.

Investment and finance



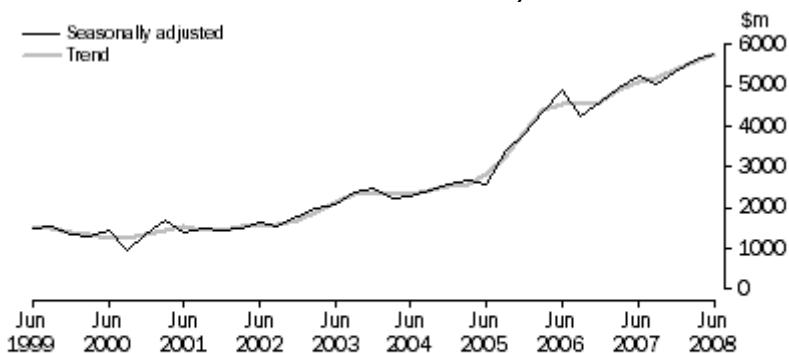
INVESTMENT AND FINANCE

PRIVATE NEW CAPITAL EXPENDITURE

In trend chain volume terms, private new capital expenditure in Western Australia rose by 3.5% (\$196 million) to \$5,761 million in the June quarter 2008, slightly lower than the growth of 3.9% (\$211 million) in the previous quarter. The rise in the current quarter, was driven by investment in both equipment, plant and machinery (up 8.3% or \$173 million) and buildings

and structures (up 0.5% or \$18 million). Western Australia's private new capital expenditure growth (3.5%) over this period was lower than the national growth of 4.1%.

PRIVATE NEW CAPITAL EXPENDITURE, Chain volume measures



Note: Break in trend series between December 2006 and March 2007.

Source: *Private New Capital Expenditure and Expected Expenditure, Australia*, cat. no. 5625.0.

In original current price terms, Western Australia's private new capital expenditure rose 13.7% (\$790 million) to \$6,569 million through the year to June 2008, lower than the previous year of 17.7% (\$840 million). The main driver of growth was the mining industry (up 30.0% or \$1,154 million), while manufacturing (down 4.3% or \$20 million) and other selected industries (down 23.4% or \$344 million) recorded declines over the same period.

HOUSING FINANCE COMMITMENTS

The number of dwellings financed for owner occupation (trend) in Western Australia continued to decline from 8,754 commitments in May 2007 to 6,200 commitments in July 2008. In the last four quarters, the number of dwellings financed have decreased, down 3.7% (960 commitments), 2.4% (600 commitments), 10.2% (2,496 commitments) and 12.7% (2,791 commitments) for the October 2007, January 2008, April 2008 and July 2008 quarters respectively.

HOUSING FINANCE COMMITMENTS, Number of dwellings financed



Source: *Housing Finance, Australia*, cat. no. 5609.0.

In the three months to July 2008, Western Australia's total value of finance for owner occupied housing (original) decreased by 3.1% (\$162 million) to \$5,000 million, compared with 8.5% (\$478 million) in the previous three month period. The decline was attributable to the decrease in finance by non-first home buyers (down 5.0% or \$212 million). In contrast, finance by first home buyers increased (up 5.6% or \$51 million) in the three months to July

2008. Over the same period, the average loan size for first home buyers increased by 2.9% (\$7,027) and for non-first home buyers by 1.7% (\$4,017). The difference between the average loan size for first home buyers (\$245,426) and non-first home buyers (\$247,146) has narrowed, with first home buyers borrowing on average \$1,720 less than the non-first home buyers .

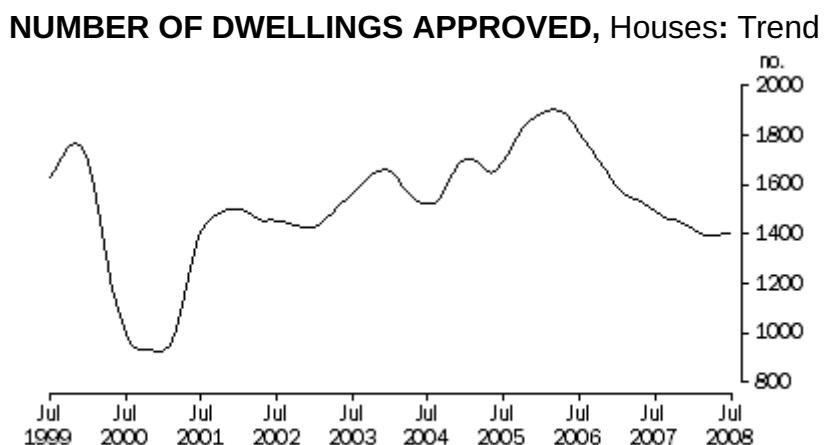
Construction



CONSTRUCTION

BUILDING APPROVALS

There were 4,199 houses (trend) approved for construction in Western Australia in the three months to July 2008, 7 approvals more than in the previous three month period. This small rise of 0.2% was the first increase since the 1.5% (84 approvals) growth recorded in the three months to April 2006. However, approvals for other residential dwellings (comprising semi-detached houses, townhouses and flats, units and apartments) fell 13.3% (209 approvals) to 1,367 in the three months to July 2008 . As a result, the total number of dwellings approved for construction declined, falling by 3.5% (202 approvals) to 5,566 approvals.



Source: Building Approvals, Australia, cat. no. 8731.0.

In the three months to July 2008, the number of new house approvals (original) in Western Australia rose by 15.8% (622 approvals), compared to the previous quarter. It is the first increase since the three months to July 2007 rise of 5.7% (254 approvals). The total number of building approvals also grew, a rise of 6.3% (360 approvals) over the same period.

In terms of dollar value, new house approvals increased 11.9% (\$128 million) to \$1,205 million, following a decrease of 4.5% (\$51 million) in the previous three months period. The value of total building approvals rose by 33.6% (\$814 million) to \$3,236 million in the three months to July 2008, after a fall of 35.2% (\$1,316 million) in the previous three months period.

Trade



TRADE

BALANCE OF TRADE

Western Australia's international trade surplus rose 26.3% (\$2,539 million) to \$12,189 million through the year ending June 2008, following a rise of 16.7% (\$1,462 million) through the year ending March 2008. Growth in the state's trade surplus was attributed to exports growth (24.1%) surpassing imports growth (20.4%) over the period.

VALUE OF WESTERN AUSTRALIA'S TRADE SURPLUS, Change from same quarter previous year



Source: ABS data available on request, *International Trade in Goods and Services, Australia*, cat. no. 5368.0.

Growth in Western Australia's trade surplus through the year ending June 2008 was mainly driven by larger trade surpluses with China (up \$1,460 million), Japan (up \$778 million), Singapore (up \$452 million) and Republic of Korea (up \$368 million). However, a much lower trade surplus was recorded with India (down \$480 million), Switzerland (down \$457 million) and Russian Federation (down \$197 million).

EXPORTS

The value of exports from Western Australia rose 24.1% (\$3,755 million) to \$19,361 million through the year to June quarter 2008. The major commodities driving the growth in exports were Iron ore and concentrates (up \$2,081 million or 52.0%), Crude petroleum oils (up \$1,005 million or 60.3%), Natural gas (up \$520 million or 58.4%) and Wheat (up \$376 million or 113.5%). The major detractors from exports growth over the period were Confidential items (down \$456 million or 16.2%), Nickel (down \$228 million or 54%), Refined petroleum oils (down \$59 million or 36.5%) and Non-monetary gold (down \$47 million or 1.5%).

IMPORTS

The value of imports into Western Australia increased by 20.4% (\$1,216 million) to \$7,172 million through the year to June quarter 2008. The major commodities driving the growth in imports were Non-monetary gold (up \$348 million or 23.9%), Refined petroleum oils (up \$225 million or 54.1%), Crude petroleum oils (up \$223 million or 38.9%) and Fertilisers (up \$143 million or 117.9%). The major commodities recording declines in imports over the

period were Ships, boats and floating structures (down \$29 million or 42.8%) and Parts and accessories of office machines (down \$1 million or 12.7%)

Mining

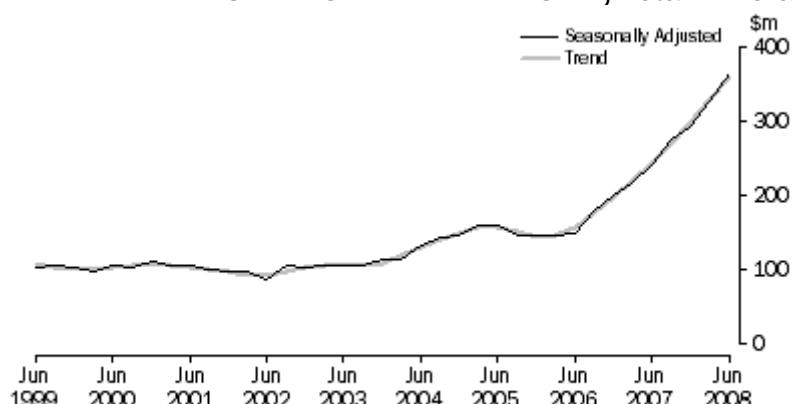


MINING

MINERAL AND PETROLEUM EXPLORATION EXPENDITURE

Expenditure on mineral exploration in Western Australia rose by 9.3% (\$31 million) to \$360 million in the June quarter 2008 in trend terms. This rise followed growth of 10.7% (\$29 million) in the December quarter 2007 and 10.3% (\$31 million) in the March quarter 2008.

MINERAL EXPLORATION EXPENDITURE, Total minerals



Source: Mineral and Petroleum Exploration, Australia, cat. no. 8412.0.

Mineral exploration expenditure in original terms rose by 51.4% (\$129 million) to \$381 million in Western Australia through the year to June 2008. Most of the major minerals showed growth over this period, with the highlights being Iron ore (up 63.5% or \$54 million), Gold (up 42.7% or \$30 million), Nickel and cobalt (up 54.3% or \$29 million) and Copper (up 17.0% or \$2 million). Petroleum exploration expenditure (original) in Western Australia rose 17.4% (\$92 million) to \$617 million through the year to June 2008.

MINERAL AND ENERGY PRODUCTION

Through the year to June 2008, Western Australia's production of mineral commodities increased in Iron ore (up 16.2%), Zinc (up 14.3%) and Nickel (8.7%). In contrast, mineral commodities of Diamonds (down 30.5%), Ilmenite (down 21.6%) and Gold (down 12.8%) declined through the year. Energy production in the state decreased for Crude oil (down 6.0%), Electricity (down 3.6%) and Natural gas (down 1.5%).

Tourism



TOURISM

SHORT-TERM OVERSEAS HOLIDAY ARRIVALS

In the June quarter 2008, a total of 45,070 overseas visitors travelled to Western Australia on holiday, 10.5% (down 5,272) less than in the same period of 2007. The decline was attributable to the fall in holiday makers from Asian countries of Singapore (down 3,592 or 26.2%), Japan (down 1,712 or 37.9%), Malaysia (down 1,672 or 28.8%) and Hong Kong (down 564 or 43.4%). In comparison, there were holiday makers coming from Europe (up 694 or 15.0%)(excluding United Kingdom, Channel Islands, Isle of Man and Ireland); also from United States of America (up 619 or 73.8%) and Thailand (up 409 or 36.6%).

SHORT-TERM OVERSEAS HOLIDAY DEPARTURES

In the June quarter 2008, a total of 109,970 Western Australians went overseas on holiday, 13.0% (12,690) more than in the previous year. The major destinations were Indonesia (up 9,394 or 47.5%), Thailand (up 2,848 or 21.1%) and Europe (up 2,068 or 21.5%) (excluding United Kingdom, Channel Islands, Isle of Man and Ireland). However, there were fewer Western Australians travelling to Singapore (down 1,812 or 19.4%), United Kingdom, Channel Islands, Isle of Man and Ireland (down 1,775 or 15.6%) and Malaysia (down 1,112 or 18.2%).

Labour market



LABOUR MARKET

JOB VACANCIES

In the May quarter 2008, job vacancies in Western Australia declined to 27,200, from a peak of 32,600 in the November quarter 2007. However, through the year to May quarter 2008, job vacancies in the state increased marginally by 0.8% (200 vacancies) . This was driven by the public sector increase of 21.7% (400 vacancies) to 2,300 as the private sector recorded a decline of 0.8% (down 300 vacancies) to 24,800.

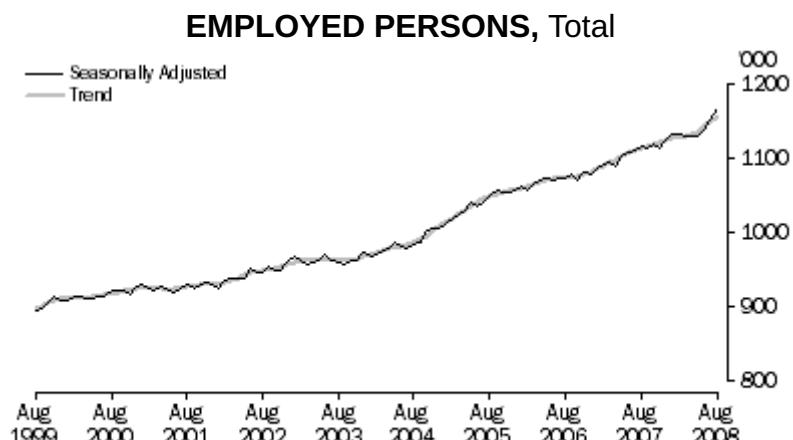
EMPLOYMENT

Western Australia's full-time employment (trend) rose 2.1% (up 17,500 persons) to 844,000 persons in the three months to August 2008, following a rise of 1.4% (up 11,700 persons) in the previous three month period. The recent quarterly rise was attributable to increases in both male full-time employment (up 2.5% or 13,800 persons) and female full-time employment (up 1.3% or 3,700 persons).

Estimated part-time employment in Western Australia rose 0.5% (up, 1,500 persons) to 312,100 persons in the three months to August 2008, mainly due to the growth of female part-time employment (up 0.8% or 1,800 persons). In comparison, male part-time

employment fell (down 0.4% or 300 persons).

Overall, employment in Western Australia grew 1.7% (up 19,000 persons) to 1,156,000 persons in the three months to August 2008, compared to the previous three months period of 0.7% (up 8,000 persons).

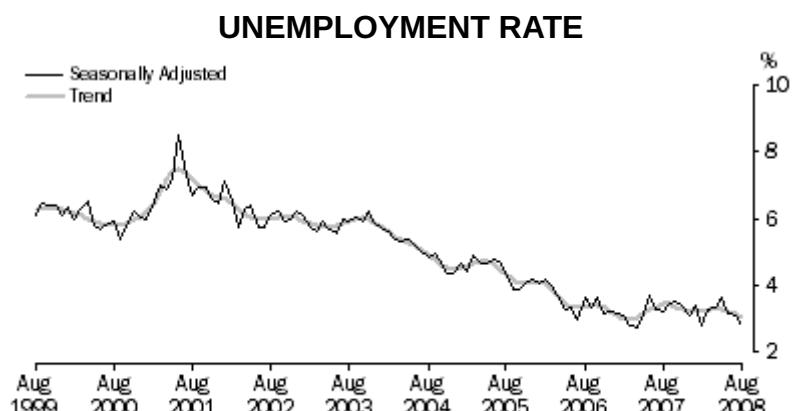


The major industries contributing to Western Australia's employment growth (original) through the year to August 2007 were Mining (up 18,000 or 34.6%), Construction (up 14,900 or 14.0%), Retail trade (up 11,400 or 7.3%) and Education (up 9,800 or 12.6%).

From an occupation perspective, employment growth was strong for Tradesperson and related workers (up 19,800 or 13.4%), Associate professionals (up 17,500 or 12.8%), Intermediate production and transport workers (up 16,000 or 15.5%) and Managers and administrators (11,400 or 12.9%).

UNEMPLOYMENT

The unemployment rate (trend) in Western Australia decreased from 3.3% in May 2008 to 3.1% in August 2008. Nationally, the unemployment rate remained unchanged at 4.2% over the same three month period. The number of unemployed persons in Western Australia decreased by 5.5% (2,100 persons) to 36,400 persons in the three months to August 2008. Male unemployment decreased 12.4% (2,500 persons), while female unemployment rose 2.2% (400 persons).



Source: Labour Force Australia, Spreadsheets, cat. no. 6202.0.55.001.

Population



POPULATION

ESTIMATED RESIDENT POPULATION

Western Australia's Estimated Resident Population was 2,149,066 in the March quarter 2008, an increase of 18,269 persons (0.9%) from the previous quarter. The state's quarterly population growth rate was well above the Australian's rate of 0.5% and highest among states and territories, with Queensland (up 0.6%) as the next highest. In the March quarter 2008, Western Australia recorded a natural increase of 5,415 persons (8,344 births less 2,929 deaths) while net overseas migration (up 11,426 persons) and net interstate migration (up 1,428 persons) also added to the state's population.

Main Features

NOTES

FORTHCOMING ISSUES

ISSUE (QUARTER)	Release Date
December 2008	Withdrawn

CHANGES IN THIS ISSUE

Table 7 — Retail Trade, Monthly turnover by industry group - Current prices: All series no longer available. This table has been replaced by Retail Trade, Monthly turnover - Current prices: Trend

Table 22, 23 and 24 — SITC trade data have been updated from SITCr3 to SITCr4

Table 31 — United Kingdom will now be labelled UK, CIs & IOM, as Channel Islands and Isle of Man are classified as separate countries.

EXPLANATORY NOTES

The statistics shown are the latest available as at 24 September 2008. Explanatory Notes of the form found in other ABS publications are not included in **Western Australian Statistical Indicators**. Readers are directed to the Explanatory Notes contained in related ABS publications.

REVISIONS

Data contained in this publication are subject to revision as more complete and accurate information becomes available each quarter.

INQUIRIES

For information about other ABS statistics and services, please refer to the back of this publication.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Sue Lee on Perth (08) 9360 5111.

List of Historical Feature Articles



FEATURE ARTICLES

Issue	Title
Sep 2008	Preparedness for emergencies and household assistance required
June 2008	Migration and mobility in Western Australia
Mar 2008	Regional household and family characteristics in Western Australia
	Retail industry in Western Australia
Dec 2007	Regional housing in Western Australia
	Short-term overseas travel to and from Western Australia
Sep 2007	Regional wage and salary earners in Western Australia - 2001-02 to 2003-04
	Cultural diversity in Western Australia
Jun 2007	Research and experimental development in Western Australia
	General Social Survey - Western Australian summary
	Changing water and energy use in Perth homes
Mar 2007	The resource industry in Western Australia: 2001-02 to 2005-06
	The agriculture industry in Western Australia
Dec 2006	Pathways in education and related outcomes in Western Australia
	Drivers of Perth's rising prices
	International trade in Western Australia: 2003-04 to 2005-06
Sep 2006	Measures of Western Australia's progress
	Western Australians on the move - A housing perspective
Jun 2006	Labour force trends in Western Australia
	Selected statistics for Aboriginal and Torres Strait Islander people in Western Australia
Mar 2006	Skills shortages in Western Australia - Part 2
	Household expenditure in Western Australia
Dec 2005	Skills shortages in Western Australia - Part 1
	State accounts - A snapshot of Western Australia's economy in 2004-05
Sep 2005	Youth in regional Western Australia

Jun 2005	Western Australia's changing trade relations - The emergence of China and India
	Disability, ageing and carers in Western Australia
Mar 2005	Components of Western Australia's economic growth
	Social interactions and support in Western Australia
Dec 2004	The impact of rising house prices on the WA economy
	State accounts: A snapshot of WA's economy in 2003-04
Sep 2004	Intra-state migration
Jun 2004	Household water conservation and use in Western Australia
Mar 2004	Regional wage and salary earners in Western Australia
	The impact of migration on Western Australia's population
Dec 2003	The construction industry in Western Australia
Sep 2003	The winemaking industry in Western Australia
Jun 2003	Population measures: A case study
	Salinity and land management on Western Australia farms
Mar 2003	Demystifying chain volume measures
Dec 2002	Western Australia: A small area perspective
Sep 2002	Western Australia's age and sex distribution
Jun 2002	The resources industry in Western Australia
	Understanding population measures
Mar 2002	Interpreting time series data
Dec 2001	A view of housing density in Perth
	Educational participation in Western Australia
Sep 2001	A century of population change in Western Australia
	Foreign capital expenditure in Western Australia
Jun 2001	Use of information technology in Western Australia
	Methods of setting pay in Western Australia
Mar 2001	Crime and safety in Western Australia
Dec 2000	Small business in Western Australia
Sep 2000	Western Australia's merchandise trade with the rest of the world

About this Release

Contains the most recent statistics for Western Australia covering: state accounts; prices; consumption; investment and finance; construction; trade; mining and energy; agriculture; tourism; labour market; population; crime; and social trends. Quarterly issues include an analysis of recent movements in key state data, as well as feature articles reviewing aspects of Western Australia's economy and/or society.

Preparedness for emergencies and household assistance required (Feature Article)

FEATURE ARTICLE: PREPAREDNESS FOR EMERGENCIES AND HOUSEHOLD ASSISTANCE REQUIRED

EMERGENCIES IN WESTERN AUSTRALIA

Emergencies can result from a variety of natural hazards, including bushfires, tropical cyclones, severe weather, floods, earthquakes, landslides and tsunamis, as well as man-made events such as chemical spills, oil spills, gas leaks, radiological contamination, explosions and acts of terrorism. Many of these events pose a serious threat to human life, property and community infrastructure and can require a range of interventions from government and volunteer agencies. Geoscience Australia estimates that natural hazards alone cost the nation an average of \$1.25 billion per year although the cost of individual hazard events can be much greater.

In Western Australia, most emergency incidents requiring agency intervention result from natural hazards, particularly bushfires, cyclones, storms and associated flooding. The Fire and Emergency Services Authority of Western Australia (FESA) reports that, in the three years to June 2007, career and volunteer firefighters responded to a total of 22,834 grass and bush fires, an average of more than 7,600 a year. Most recently, an emergency was declared during the 2006-07 bushfire season when hundreds of fires burned across the State, including 29 in the south-western region. These required the formation of incident management teams and the coordinated support of 25 local government authorities. In the same three-year period, another 441 hazard events were reported to FESA, some of which did not require an agency response.

Storms, which mostly affect the southern half of Western Australia, generally cause more damage each year than other natural hazards. In 2006-07, the Bureau of Meteorology reported 41 severe storms across the State. These included a tornado in the Australind area that resulted in power outages and damage to 50 homes and commercial properties, seven of which were totally destroyed.

Many parts of Western Australia are prone to flooding, arising either from torrential rain during the monsoonal wet season in the north of the State, or heavy storms during the southern winter. In 2006-07, three major floodings were reported to the emergency authorities, one of which caused significant damage in the town of Esperance and surrounding areas.

The coastal stretch of Western Australia from Exmouth to Broome has the highest incidence of tropical cyclones anywhere in Australia. This region experiences cyclonic winds and associated flooding, high seas and storm surge. During 2006-07, the Western Australian government proclaimed two cyclone events as natural disasters. One of these was Tropical Cyclone George, a category five cyclone which resulted in three fatalities and numerous injuries, as well as extensive property and infrastructure damage in the north of the State. The other, which affected communities in the Great Southern Region, resulted from a deep weather front combining with Tropical Low Isobel. Communities affected by such natural disasters may be eligible for State government funding to assist with their recovery.

INFORMATION NEEDS

There is a growing demand for information on the preparedness of householders for emergency situations and the types of assistance they would require. This article draws on data from the 2007 State Supplementary Survey, **Community Preparedness for Emergencies** (ABS cat. no. 4818.5), which collected a broad range of information from Western Australian households on these issues.

The article examines household access to relevant communication systems as well as aspects of their emergency preparedness and requirements for assistance. The relationship of these factors to other household characteristics, including geographic location, household composition, age and dwelling tenure type, is also explored.

WESTERN AUSTRALIAN HOUSEHOLDS: OVERVIEW

Geographic Location

Of the estimated 818,900 households in Western Australia in 2007, 75.1% were located in the Perth Metropolitan Region. Of the remaining households, 14.9% were in the Lower

Western Region. (For further details of these statistical regions, refer to the Australian Standard Geographical Classification, July 2007, ABS cat. no. 1216.0.) Only 10.0% of households were outside these two most populous regions of the State. Due to the relatively small sample size, particularly outside Perth, most of the regional analysis in this article relates to households in Perth and the remainder of the State (Non-metropolitan region). However, where statistical reliability permits, some smaller area data are presented.

Household Composition

In 2007, persons living alone accounted for one-quarter (26.2%) of all Western Australian households. A similar number of households (25.7%) were couple-only households while 29.7% were couples with children (of all ages). About one in ten households (9.5%) were lone parents with children (of all ages).

Age of household members

In 2007, an estimated 223,900 (27.3%) households in Western Australia had at least one child under 15 years of age while 238,700 (29.1%) households had at least one person aged 60 years or over. (Note: there is some overlap between these categories as a small proportion of households contained persons in both age groups.)

Dwelling Tenure Type

Almost three-quarters (72.2%) of households in the State, in 2007, lived in dwellings that they owned or were purchasing (owner-occupiers). Most of the remaining households (26.6%) lived in rental dwellings while little more than 1% lived in other tenure types.

Communication Systems

Effective modes of communication are invaluable in emergency situations. In particular, they can be used to provide information and advice to households threatened by a bushfire, cyclone, severe storm or other impending local hazard. Household preparedness for emergencies was therefore measured in the survey in terms of access to working portable radios, mobile phones, landline phones and the internet.

Access to communication systems, Western Australia, 2007

Selected characteristics	HOUSEHOLDS ('000)	PROPORTION (%)
No portable radio with working batteries	390.7	47.7
No mobile phones	81.5	10.0
No landline telephone connection	87.3	10.7
No internet access	264.7	32.3
Total households	818.9	100.0

In 2007, just under half (47.7%) of Western Australian households had no portable radio with working batteries and almost one-third (32.3%) had no internet access.

Almost all (99.5%) households across the State were connected to the telephone network, via landline, mobile, or both. The largest majority (79.9%, 653,900 households) had both forms of communication while 10.2% (83,600 households) had only mobile phones and

9.5% (77,800 households) had only landlines. Of the estimated 3,800 (0.5%) households in the State with no telephone service of any kind, 3,300 also had no working portable radio.

Preparedness for Emergency Evacuation

As the more commonly occurring natural hazards in Western Australia (bushfires, cyclones, storms and related flooding) sometimes require residents to evacuate their homes, this analysis focuses on measures of community preparedness that are specifically related to household evacuation. These measures include whether households had an exit plan for the dwelling, an agreed meeting place outside the home, access to alternative accommodation and willingness to leave their home in the event of a major emergency.

Fire and emergency authorities generally recognise that households with an exit plan, agreed meeting place and alternative accommodation are able to respond more quickly and appropriately to an emergency evacuation than households whose members have not previously discussed these issues. Willingness to leave the family home is a further factor which authorities must take into account in evacuating any community or residential area. The latter has particular ramifications in the event of a major bushfire where householders are faced with a decision to leave, or stay and defend their homes.

Preparedness for an emergency evacuation, Western Australia, 2007

Selected characteristics	HOUSEHOLDS ('000)	PROPORTION (%)
Exit plan from dwelling	381.1	46.5
Agreed meeting place	85.8	10.5
Have access to alternative accommodation	754.3	92.1
Not willing to evacuate	93.4	11.4
Total households	818.9	100.0

In 2007, the majority of households (88.6%) indicated their willingness to evacuate in the event of a major emergency. Of those who did not wish to evacuate, half (49.6%) reported that they would prefer to stay to fight bushfires and two in five (39.9%) wanted to prevent looting and vandalism of their property.

The majority of households (92.1%) had access to alternative accommodation; however, among households with members whose mobility was impaired due to disability, the level of access to alternative accommodation fell to 88.1%.

Almost half of households (46.5%) reported having an exit plan for their dwelling but only one in ten (10.5%) had an agreed meeting place.

Evacuation Assistance Required

Data are presented below on the different types of assistance required by households in the event of an emergency evacuation. These include the need for assistance to exit the dwelling, assistance with transport and with evacuating household pets.

Assistance to exit the dwelling may be needed by households with young children, elderly household members, or persons with disabilities while lack of access to a motor vehicle can be of crucial importance in enabling a household to evacuate. In addition, the recent experience of New Orleans residents, many of whom saw their family pets perish in Hurricane Katrina, indicates that emergency authorities are likely to pay more attention to

the requirements of households with pets in future large-scale evacuations.

Evacuation assistance required, Western Australia, 2007

Selected Characteristics	HOUSEHOLDS ('000)	PROPORTION (%)
Require assistance to exit dwelling	155.3	19.0
Require transport assistance	201.7	24.6
Pets needing evacuation	436.2	53.3
Total households	818.9	100.0

In 2007, almost one quarter (24.6%) of households in Western Australia required transport assistance following an evacuation while more than half (53.3%) required pets to be evacuated.

Assistance to exit the dwelling was required by a smaller, but still substantial, proportion of households (19.0%). The main reason reported for needing this type of assistance was the presence of young children. Of the 155,300 households that needed exit assistance, three-quarters (75%) gave this as their main reason. Mobility impairment was the next most common reason, accounting for 20.5% of these households.

COMMUNICATION

Geographic Location

Around 48% of households, both in Perth and elsewhere in the State, had no working portable radios although households in the non-metropolitan regions had lower levels of access to the internet. In this case, the proportion with no access to the internet was 37.6% compared with 30.6% for Perth households.

In terms of telephone connections, those living outside Perth were also more disadvantaged, with 13.4% having no landline connection and 12.3% having no mobile phone (compared with 9.8% and 9.2% respectively for Perth residents).

While access to mobile phones may be expected to vary with physical distance from transmitters, it is interesting to note that the level of access was lowest in the Lower Western Region, where 15.0% of households had no mobile phones. This compares with 9.2% for Perth residents and 8.5% for residents in the remainder of the State. This may well reflect the greater proportion of older people living in the Lower Western Region.

Household Composition

Couple-only households were most likely to have access to a working portable radio. Only 37.8% of these households had no such access in comparison with 47.7% of households overall.

Persons living alone and households with children (of all ages) were least likely to have access to a working portable radio. Approximately half of all persons living alone (51.5%) and couples with children (50.3%) did not have such a radio while the figure for lone parent households was even higher at 54.6%.

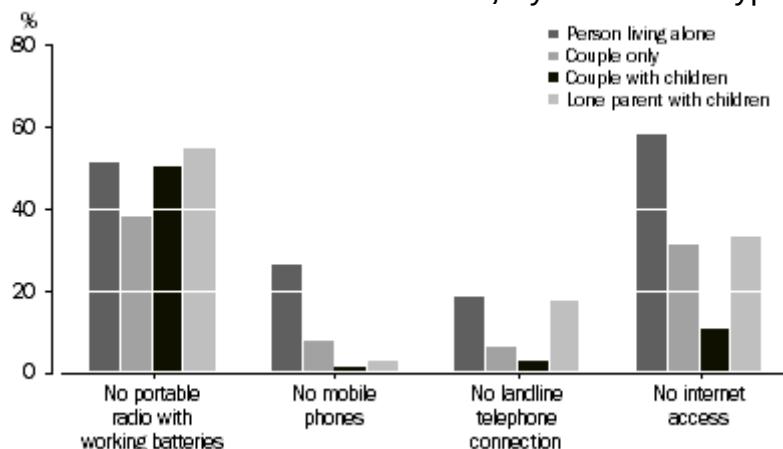
More than one-quarter (26.4%) of persons living alone had no mobile phone and almost one

in five (18.3%) had no landline connection. The majority (70.2%) of the 3,800 (0.5%) households in the State with no telephone of any sort were persons living alone. Of the estimated 3,300 households that had neither a telephone connection nor working radio, two-thirds (66.2%) were persons living alone.

A considerable proportion of lone parent households (17.8%) lacked a landline telephone whereas this was much less common among couples with children (3.1%) and couple-only households (6.4%).

Internet access varied considerably according to household type. Whereas only 10.8% of couples with children had no internet connection at home, the figure was considerably higher for lone parent households (33.1%) and persons living alone (58.3%), perhaps reflecting their generally lower disposable income and older age profile.

ACCESS TO COMMUNICATION, By Household Type



Households with older and younger members

While access to a working portable radio was quite low (47.7%) among all Western Australian households, those with children under 15 years were least likely to have such access. Of these 'younger' households, 55.0% reported that they had no portable radio with working batteries. The comparable figure for households containing older members (60 years and over) was much lower at 37.1%.

Not unexpectedly, the pattern was reversed in respect of access to mobile phones and the internet. Less than 2% of households with children under 15 years had no mobile phones and 17.7% had no internet connection at home. The comparable figures for households with persons aged 60 years and over were much higher, at 28.2% and 54.7% respectively.

Tenure type

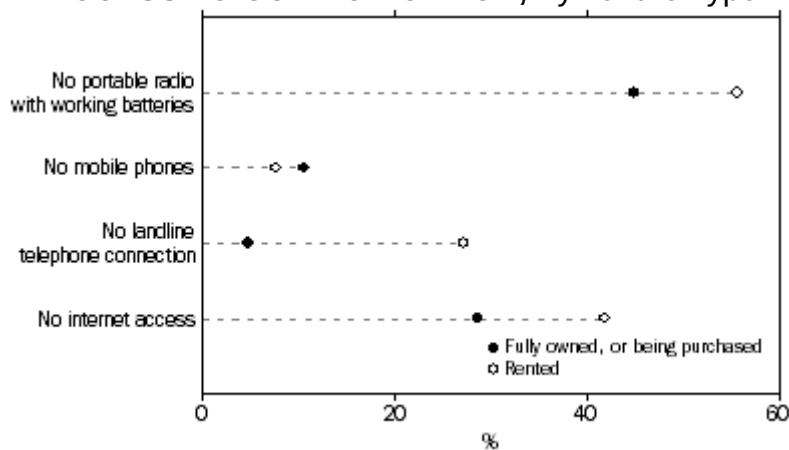
In 2007, access to most methods of communication was lower for rental dwellings than for those that were owner-occupied. Of the 217,700 Western Australian households in rental accommodation, 55.6% had no working portable radio whereas the comparable figure for households in owner-occupied dwellings was 44.9%.

Those in rental dwellings were also more likely to have no internet access (41.8% compared with 28.6% for owner-occupiers) and were least likely to have a landline telephone connection. More than one-quarter (27.1%) of renters had no landline connection whereas

the comparable figure for owner-occupiers was only 4.7%. However, the lack of a landline telephone among renters was partially offset by better access to mobile phones, with only 7.7% having no mobile phone compared with 10.6% of owner-occupiers.

Those in owner-occupied dwellings were more likely to have access to both mobile and landline services (85.1%) than those in rental dwellings (65.7%).

ACCESS TO COMMUNICATION, By Tenure Type

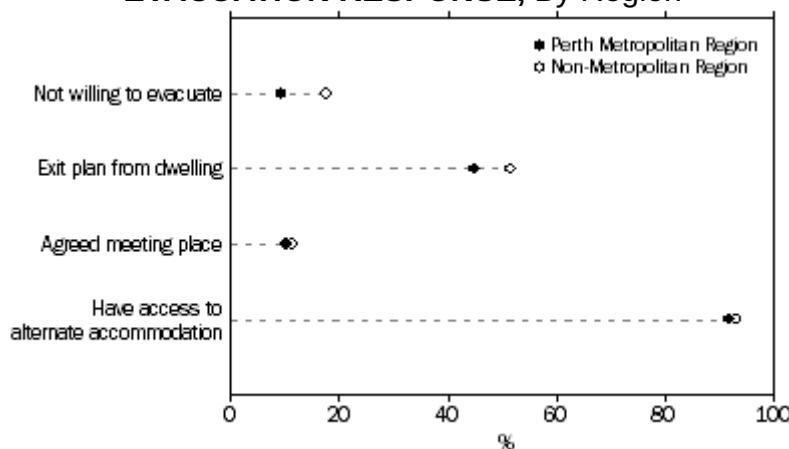


EVACUATION READINESS

Geographic Location

Households outside Perth reported slightly higher levels of readiness for an emergency evacuation than their urban counterparts in terms of having an exit plan (51.5% versus 44.9%). This may reflect the more frequent exposure of residents in rural areas to natural hazards, particularly bushfires and tropical cyclones. In fact, 16.3% of respondents in the non-metropolitan regions of the State indicated that they had previously experienced a major emergency compared with only 5.2% of those in Perth. The proportion with previous experience was considerably lower in the Lower Western Region (12.9%) than in the remaining, generally more remote, portion of the State (21.3%).

EVACUATION RESPONSE, By Region



Households in the East Metropolitan Region had noticeably more experience of major emergencies (9.9%) and were more likely to have an exit plan (51.1%) than others in the metropolitan area. This is perhaps a consequence of their higher levels of exposure to

bushfires on the eastern fringes of the city.

Significant differences were also apparent between Perth and non-metropolitan households in their willingness to evacuate in the event of an emergency. While only 11.4% of households across the State expressed unwillingness to evacuate, this figure was higher in the East Metropolitan (16.3%) and non-metropolitan (17.7%) regions, where relatively frequent exposure to natural hazards, particularly bushfires, may result in more households deciding to stay to defend their homes.

Only 10.5% of households across the State had a prearranged meeting place following an emergency evacuation. There were only small regional variations to this figure. Once again, the East Metropolitan Region had the highest proportion (12.1%) while the lowest proportion was in the Central Metropolitan Region (7.6%).

Access to alternative accommodation was universally high, at 90% or more, across both Perth and non-metropolitan regions.

Household Composition

Lone parent households showed the greatest willingness to evacuate in comparison with other family household types. Only 5.1% of these households were unwilling to evacuate in the event of a major emergency, compared with 10.2% of couples with children and 13.3% of couple-only households. For persons living alone, the proportion unwilling to evacuate was a little higher at 14.1%.

Further analysis of households in Western Australia with an exit plan (46.5%) indicates that this relatively high figure is largely driven by persons living alone (62.4%). The latter were much more likely to have an exit plan than other types of households; however, this is not surprising given that single person households are likely to have smaller dwellings, fewer exit options and a reduced need to confer with others.

Almost two in five (39.0%) couples with children indicated that they had an exit plan. This is lower than the comparable proportions for lone parent households (41.9%) and for couple-only households (43.2%).

While only one in ten households across the State had an agreed emergency evacuation meeting place, this proportion would obviously be a little higher if persons living alone were excluded from the total (as they have no other household members to meet). The proportion with an agreed meeting place was higher for couple-only households (15.6%) and lone parent households (15.1%) than for couples with children (13.1%).

Access to alternative accommodation was uniformly high across all household types, exceeding 92% for persons living alone, couple-only households and all families with children.

Households with older and younger members

For households with children under 15 years, the proportion with an exit plan (41.7%) was a little lower than for all households in the State (46.5%). For households with persons aged 60 years and over, the figure was substantially higher, at 56.8%, perhaps reflecting the large proportion who were living alone.

Households with children under 15 years also had low levels of preparedness for evacuation

in terms of having no agreed meeting place (10.5%). These findings suggest that families with school-age children could perhaps be targeted for emergency evacuation training through programs offered in the primary and secondary education system.

For households with persons aged 60 years and over, the proportion with an agreed meeting place was a little higher, at 14.1%. (Once again, this proportion would, almost certainly, be higher if persons living alone were excluded.) However, these households with older members were more likely to be unwilling to evacuate their homes in the event of an emergency (14.0%) in comparison with households containing children under 15 years (7.4%).

There was a uniformly high level of access to alternative accommodation, with the figure for both household types being within one percentage point of the figure for all households in the State (92.1%).

Tenure type

The differences between owner-occupiers and renters were negligible in regard to having an exit plan and an agreed meeting place. The proportions for both types of household were, again, within one percentage point of the overall figures for the State (46.5% with an exit plan and 10.5% with an agreed meeting place). However, access to alternative accommodation was lower for rental households (88.9%) than for households who owned or were purchasing their dwelling (93.2%).

NEED FOR EVACUATION ASSISTANCE

Geographic Location

The need for assistance to exit the dwelling varied little between Perth (19.3%) and the remainder of the State (17.9%). Within Perth, the need was highest in the South Western Metropolitan Region (22.9%).

The need for transport assistance was similar across the State, with approximately 25% of households in both the metropolitan and non-metropolitan regions reporting this requirement.

Assistance with evacuating pets was a significant need across Western Australia, although somewhat higher among households in non-metropolitan regions (61.3%) than in Perth (50.6%). The inner city areas in the Central Metropolitan Region of Perth had the lowest need for assistance with evacuating family pets (32.6%).

Household Composition

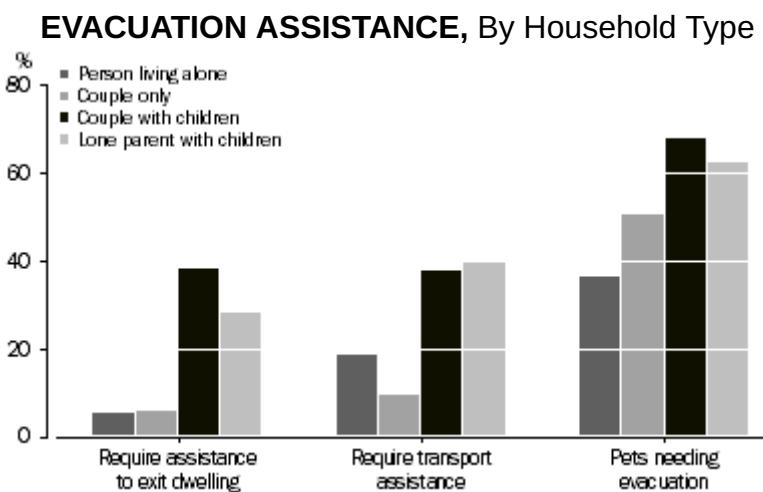
While almost one in five households in Western Australia (19.0%) reported a need for assistance to exit the dwelling in the event of an emergency, the figure was comparatively low for persons living alone (5.6%) and couple-only households (5.7%). It is likely that many of these households would have contained older persons. Where exit assistance was required, mobility restriction was the main reason cited, by 80.8% of those living alone and 88.2% of couple-only households.

The proportion needing exit assistance was considerably higher among couples with children (38.3%). Interestingly, lone parent households reported less need for assistance of

this kind (28.3%).

Approximately one-quarter (24.6%) of households in Western Australia required transport assistance and households with children reported a much higher need. In this case, the need for assistance was similar for couples with children (38.0%) and lone parents with children (39.6%). The need for transport assistance was lowest among couple-only households (9.5%), followed by persons living alone (18.5%).

While 53.3% of households across the State required pets to be evacuated, the comparable figure was higher for households with children, with around two-thirds reporting this type of need. (The figure was 67.8% for couples with children and 62.3% for lone parents with children). However, only 36.3% of people living alone reported this need, perhaps reflecting a lower level of pet ownership or their lower requirement for other types of evacuation assistance.

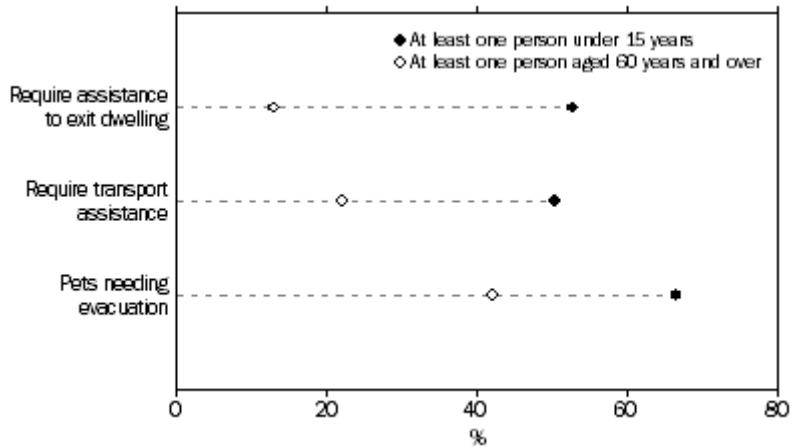


Households with older and younger members

Although less than one-fifth (19.0%) of households in the State required assistance to exit their dwelling, more than half (52.8%) of those with children under 15 years required such assistance. In contrast, only 13.0% of households with persons aged 60 years or over reported a need for this type of assistance. The findings relating to transport assistance were similar, with more than twice as many households with children (50.3%) reporting this need as households with persons aged 60 years and over (22.1%).

The differences between households with these different age profiles, though less pronounced, were also apparent with regard to pets needing evacuation. Although the overall State figure was high at 53.3%, the comparable figure for households with children was even higher at 66.5% while, for households with members in the older age group, it was only 42.0%.

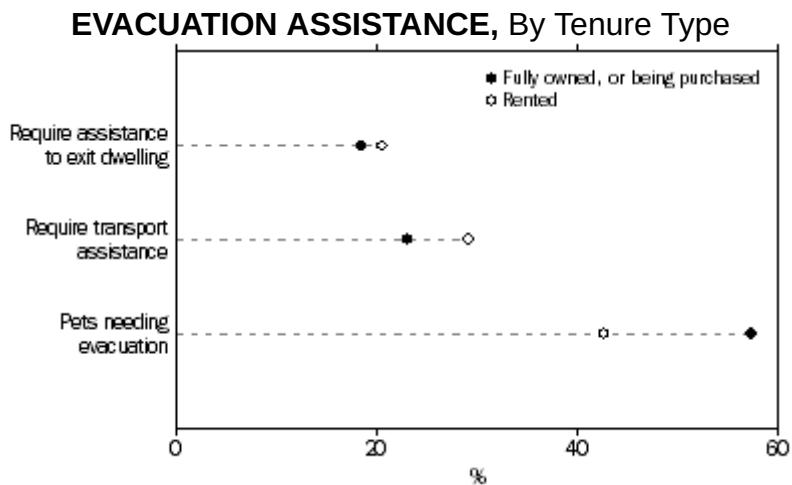
EVACUATION ASSISTANCE, By Age Group



Tenure type

The need for assistance in the case of an evacuation varied according to tenure type. Those in rental accommodation were likely to have a greater need for assistance to exit the dwelling (20.5%) and for assistance with transport (29.2%) in comparison with owner-occupiers (18.5% and 23.1% respectively).

The greatest difference between the two tenure types was in respect of pets needing evacuation. In this case, the need for assistance was reversed, with 57.4% of owner-occupiers and only 42.7% of rental households reporting this need.



SUMMARY OF FINDINGS

The results of the 2007 survey, **Community Preparedness for Emergencies**, indicate some household types that may be vulnerable in major emergencies. The information is relevant to government and volunteer agencies in alerting communities to, and providing advice on, emergency situations; in targeting education campaigns to appropriate age and community groups; and in providing appropriate assistance to households in an emergency evacuation.

Some of the more significant findings are summarised below.

Communication

Persons living alone and households with persons aged 60 years or over were the most vulnerable in terms of their reduced access to telephone and internet services.

Of the 3,800 households in Western Australia that had no telephone service of any kind, 70.2% were persons living alone.

Households with persons aged 60 years and over were more likely than younger households to have a working portable radio.

Households in rental dwellings had generally less ability to obtain information about an emergency via a portable radio, landline telephone or the internet but had better access to mobile phones.

Households in the Lower Western Region suffered some disadvantage in relation to mobile telephone connections. These households were more likely than households in Perth and elsewhere in the State to have no mobile telephones, perhaps reflecting the greater proportion of older persons living in that region as well as (in some cases) distance from transmitters.

Evacuation readiness

Households on the eastern fringes of Perth and in the non-metropolitan regions were generally less willing to evacuate in the event of an emergency. However, these are the households most often threatened by bushfires and most likely to be prepared for an evacuation in terms of having an exit plan and an agreed meeting place.

Those living in inner city areas were least likely to have an agreed meeting place but this element of preparedness was consistently low across all households in the State.

Among family households, couples with children were least likely to have an exit plan or an agreed meeting place, indicating the potential value of emergency evacuation training for children in the primary and secondary education system.

Need for evacuation assistance

The need for evacuation assistance was highest among households with children; with more than half of these households requiring transport assistance and assistance to exit their dwelling, and two-thirds requiring family pets to be evacuated.

The need for assistance with pets was high across the State, particularly in outer metropolitan and rural areas.

Households in owner-occupied dwellings were more likely than renters to need assistance with evacuating pets.

Persons living alone and couple-only households, many of which would have contained older persons, had the lowest reported need for assistance with exiting their dwelling.

Households with persons aged 60 years and over had a much lower need for assistance with transport, exiting the dwelling and evacuating pets than households with children under 15 years.

References

Australian Standard Geographical Classification, July 2007, ABS cat.no. 1216.0

Community Preparedness for Emergencies, May 2008, ABS, cat.no.4818.5, data available on request

Websites

Bureau of Meteorology, **Severe Storm Summary July 2006 to June 2007**, <http://www.bom.gov.au/weather/wa/sevwx/summary.shtml>

Fire and Emergency Services of Western Australia, **Annual reports**, <http://www.fesa.wa.gov.au/internet/default.aspx?MenulD=261>

Geoscience Australia, <http://www.ga.gov.au/hazards/introduction.jsp>

Reuters, **No Pets Left Behind in New Orleans Evacuation**, Sep 1, 2008,

http://www.reuters.com/article/reutersComService_2_MOLT/idUSSIB14871620080901

Explanatory Notes

Abbreviations

The following symbols and abbreviations are used in this publication:

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASCO	Australian Standard Classification of Occupations
Aust.	Australia
ERP	estimated resident population
n.e.s.	not elsewhere specified
n.f.d.	not further defined
SITC	Standard International Trade Classification
WA	Western Australia

